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ABSTRACT

During the 1990-91 academic year, Frederick Community College (FCC) in Maryland conducted a major research project to help determine the extent and effectiveness of the college's transfer function. In the study's first phase, a Transfer Tracking System (TTS) was developed by conducting a detailed audit of all transcript requests from FCC students. Analyses of TTS data resulted in nine definitions of transfer activity, and six distinct transfer rates. In the study's second phase, a survey was conducted of all students identified by the TTS as having transferred successfully to a four-year institution in fall 1990 or spring 1991 (n=346), yielding a 51% response rate. Selected research findings included the following: (1) transfer rates ranged from 6.2% (calculated by using the number of transfers as the numerator, and total unduplicated credit enrollment as the denominator), to 30.6% (calculated by using students indicating intent to transfer and having earned at least 12 credits as the denominator); (2) 97.2% of the transfer student respondents reported that they were satisfied or very satisfied with the academic preparation for transfer they had received; (3) 87.2% reported being satisfied or very satisfied with their overall academic advising at FCC; (4) 60% had earned an associate in arts degree before transferring; (5) one-half of all respondents lost no credits in transfer, while nearly one-fourth lost seven or more credits; and (6) females outnumbered males 60% to 40%, and minority students (particularly African Americans) were virtually absent from the transfer population. A discussion of the study's implications is included. (MPH)

ED348091

Assessing the Transfer Function

Tracking Down Transfer Students at Frederick Community College

*A Report of the Transfer Tracking System
and the Successful Transfer Survey
1990-91*

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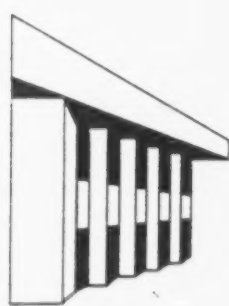
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INTRODUCTION

One of the major missions of Frederick Community College (MD) is to prepare area residents for academic success upon transfer to four-year colleges and universities. During the academic year 1990-91, Frederick Community College conducted a major research project to help determine the extent and effectiveness of its transfer function. The college plans to extend this project into a continual longitudinal research study.

There is considerable inferential evidence to show that Frederick Community College (FCC) stands out among Maryland community colleges in the strength of its transfer function. Reports from the University of Maryland Articulation Office (1989) indicate that not only do large numbers of FCC students transfer to the State campuses, but once there they earn among the highest grade point averages of all transfer students enrolled. Similar periodic reports from Western Maryland College and Hood College confirm this pattern of transfer success. The transcript audit from the college's Registrar's Office shows that hundreds of our students, both current and former, have transcripts sent to colleges and universities across the nation each year. Anecdotal information from our counselors and faculty advisors indicate that most of the students they advise have baccalaureate plans. The Maryland Higher Education Commission (1989) has reported that two out of every three first-time, full-time college freshmen (a category of student most likely to have baccalaureate degree plans) who reside in Frederick County enroll initially at FCC. In addition, the college's student data system tells us that 32 percent of our current students list "Preparation for transfer to a four-year institution" as their primary reason for attending FCC. Accordingly, FCC devotes a significant portion of its resources to support the transfer function in the areas of full-time faculty, staff, curriculum, learning resources, and articulation.

While it seemed apparent that some FCC students who transferred were very successful at some four-year schools, the college did not have a system to track effectively the majority of FCC transfer students. In fact, it received very little information back from transfer institutions when compared to the number of students who transfer. We had a complete profile of our students as long as they remained enrolled with us, but tended to lose track of them very quickly once they left and consequently we did not have useful, complete data on a majority of those students who transferred.

Transfer is largely viewed as a critical issue for community colleges because of the large numbers of people who start their undergraduate education in two-year colleges. Currently, 5.3 million people, or 43 percent of all undergraduate students are enrolled in community colleges. This number, which has increased 14 percent since 1985, is likely to continue to grow (Where America Goes to College, 1990). However, many critics have charged that despite the large numbers of students enrolled, few actually make the transition to four-year institutions (Kissler, 1980), (Karabel, 1986).

Adding to the challenge of identifying the contribution of community colleges to baccalaureate education has been the considerable variation in the literature as to the definition of a transfer student and the measurement of a transfer rate. In response to the need for a consistent, reliable definition, Arthur Cohen, president of the Center for the Study of Community Colleges, has called for nationwide attention on the transfer function of two-year colleges. A recent research project (Jones, 1991) sponsored by the Ford Foundation with participation from 39 community colleges across the country and headed by Dr. Cohen, has

agreed upon the following definition of a transfer student:

"A transfer student is one who enrolls at a community college with no previous college education, earns a minimum of 12 credits there, and enrolls at a four-year institution within five years."

Cohen's definition includes the students most often considered when evaluating transfer effectiveness; those students with baccalaureate plans who choose to start their college educations at community colleges. If, as Vaughn and Templin (1987) argue in their article "Measuring the Community College's Effectiveness", the community college treatment can put transfer students on a near-equal footing with those students admitted to the university on a competitive, selective basis, then the community college will have added considerable educational value to its students.

Therefore, if FCC were to more accurately measure the added value of the educational achievement of those students with transfer plans, it needed to develop a system to verify the successful transfer of its students to four-year colleges and universities. In addition, we needed to survey the qualitative results of transfer (i.e., degree to which our students feel they were adequately prepared, the transferability of FCC courses, opinions of academic and student services at FCC, opinion of similar services at the transfer school), to aid in the evaluation of our programs and services aimed at transfer students.

As colleges enter a period where the ability to measure outcomes becomes a criteria for determining institutional effectiveness, it is important to learn as much as we can about one of our largest student segments - those planning to transfer.

FREDERICK COMMUNITY COLLEGE TRANSFER TRACKING SYSTEM

The system described herein has tracked up to 90 percent of the total transfer activity of our students as defined using a modified version of the Cohen criteria. Transfer students included in this study include students enrolling at FCC with no previous college education, earning a minimum of 12 credits, and enrolling at a four-year college within five years and students who would qualify as Cohen transfers but have attended another college prior to enrolling at FCC.

This system now provides us with a means to answer the following questions about the transfer activity of our students:

- ~ What is our transfer rate?
- ~ How many of our students transfer?
- ~ To which schools do they transfer?
- ~ How many of their credits transfer?
- ~ Are there areas of concern with regard to courses that do not transfer?
- ~ How well does FCC prepare them for the four-year school?
- ~ How well received do they feel at the four-year school?

Methodology

All transcript requests from FCC students were entered into a data file. This file included the name, address and social security number of the student making the request, the institution to which the transcript is to be sent, and the date of the request. Requests were

collected and sorted into two time periods; March, 1990, through September, 1990 (corresponding to a Fall semester transfer), and October 1990, through January, 1991 (corresponding to a Spring semester transfer). Only transcripts sent to employers, accrediting agencies, graduate schools, insurance companies, the military and other non-collegiate institutions were excluded from the study.

A transcript audit of all transcripts sent from the Registrar's Office was previously conducted during a six-month period during school year 1989-90. The audit showed that 88 percent of all transcripts sent by the FCC Registrar's Office to colleges, universities, and proprietary schools went to just twenty-one institutions. These institutions (named the Primary Study Institutions) are:

MARYLAND COLLEGES

Capitol College
Frostburg State University
Hood College
Mount Saint Mary's College
Saint Mary's College of MD
Salisbury State University
Towson State University
Univ. of Maryland at Baltimore
Univ. of Maryland Baltimore Co.
Univ. of Maryland College Park
Univ. of Maryland University Coll.
University of Baltimore
Western Maryland College

OTHER COLLEGES

Embry-Riddle Aeronautical U.(Fla)
Shippensburg University (PA)
George Mason University (VA)
James Madison University (VA)
Radford University (VA)
Virginia Tech. (VA)
Shepherd College (W.VA)
West Virginia University (W.VA)

The groups were then sorted into twenty-two files. Twenty-one files contained information about those students sending transcripts to one of the Primary Study Institutions. The Miscellaneous file was created to capture information about those students having transcripts sent to all other two-year and four-year collegiate and proprietary institutions.

A total of 1341 current and former FCC students had transcripts sent to more than 450 different two-year and four-year colleges and proprietary schools in forty-four states, the District of Columbia, and one foreign country.

Each Primary Study Institution was mailed a roster of those FCC students having had transcripts sent to coincide with the start of the Fall 1990 and Spring 1991 semesters. Each institution returned the roster indicating whether the students listed were currently enrolled. This confirmation of enrollment by the Registrar at the transfer institution was considered to be evidence of successful transfer.

The Miscellaneous File was first reviewed to eliminate all those FCC students who had had transcripts sent but had remained in attendance at FCC. Secondly, those students attending FCC only for a summer session, and those having transcripts sent to other two-year institutions were deleted. Those remaining were then reviewed to eliminate all those not qualifying under the "Cohen" or "Reverse Transfer" definitions (12 credits or more earned at FCC prior to transfer) and those having not attended FCC for at least five years. A telephone survey was then used to confirm successful transfer of all those remaining in the Miscellaneous File. Although it was not possible to confirm all successful transfer activity within the Miscellaneous group, there was a surprisingly high response rate to the telephone survey, particularly among traditional-age students.

A second phase of the Transfer Tracking System described elsewhere in this report involved mailing the "Successful Transfer Survey" to each individual confirmed as having transferred successfully for the Fall 1990 or Spring 1991 semesters. A total of 346 former FCC students were identified as having transferred during the 1990-91 academic year to more than 80 colleges and universities. Of that total 278 transferred to 21 institutions in the Primary Study Group.

DEFINITIONS OF TRANSFER ACTIVITY

As a result of a survey of the transcripts of those students having transferred successfully, the following nine mutually exclusive categories of transfer activity were identified and described:

1. "Cohen Transfers" - students enrolling at FCC with no previous college education, earning a minimum of 12 credits, and enrolling at a four-year institution within five years.
2. Reverse Transfers - students who would qualify as Cohen Transfers but have attended another college previous to enrolling at FCC.
3. Native Transfers - students enrolled at other colleges enrolling for courses at FCC and having those credits transferred back to their "home" college. This category includes Hood and Mount St. Mary's Exchange students taking classes at FCC.
4. SOC Transfers - Military personnel taking classes at FCC, having military and other educational experiences evaluated and later transferring to another institution near a new base of assignment.
5. Community College and Proprietary Transfers - students who transfer from FCC to other two-year institutions for specialized programs or continued lower-division coursework. Some would qualify as Cohen transfers if they had transferred to a four-year college.
6. Old Transfers - Former FCC students transferring to two- and four-year institutions after more than a five-year absence in enrollment at FCC.
7. Open Campus Transfers - former FCC Open Campus (12th grade) students transferring their credits to a four-year college prior to their enrollment as freshmen.
8. Certification Transfers - students enrolling for specific courses at FCC needed for certification (CPA, teaching, graduate school pre-requisites) and having their transcripts sent to graduate schools or certifying agencies.
9. Short-time Transfers - students who would qualify as Cohen transfers, but who have earned less than 12 credits at FCC.

Transfer categories #1 and #2 (Cohen and Reverse) constitute what is generally regarded as "traditional" transfer activity and formed the basis of further statistical analysis of FCC's transfer effectiveness.

These two categories of transfers were tracked from the results of the information received from the twenty-one Primary Study Institutions and from phone surveys to gain enrollment confirmation from the Miscellaneous group. These two categories were assumed to be the most critical in our assessment of our institutional transfer effectiveness.

Results of Confirmed Transfer Activity Fall 1990/Spring 1991

Among Colleges in Primary Study Group

	No. of FCC Transcripts Sent	No. of Cohen Transfers*	No. of Reverse Transfers**	Fall and Spring Total	Number Responding to Survey
Institutions (All in Maryland except as noted)					
Hood College	114	42	16	58	34
Frostburg State University	89	34	3	37	23
Towson State University	92	28	3	31	16
Univ. of Maryland College Park	81	26	2	28	15
Shepherd College (W.VA)	91	25	3	28	16
Univ. of Maryland Balt. Co.	55	14	6	20	13
Mt. St. Mary's College	41	16	3	19	11
Univ. of Maryland Univ. Coll.	32	9	1	10	4
Salisbury State University	35	7	1	8	4
West Virginia University (W.VA)	29	5	1	6	3
Capitol College	9	4	0	4	3
George Mason University (VA)	11	4	0	4	1
University of Baltimore	7	4	0	4	2
Virginia Tech. (VA)	21	4	0	4	0
James Madison University (VA)	15	3	0	3	2
Radford University (VA)	8	3	0	3	1
Western Maryland College	18	1	2	3	1
St. Mary's College of MD	4	3	0	3	2
Univ. of Maryland at Baltimore	19	0	2	2	1
Shippensburg University (PA)	15	1	1	2	1
Embry-Riddle (Fla.)	<u>8</u>	<u>0</u>	<u>1</u>	<u>1</u>	<u>1</u>
	804	233	45	278	154(55.4%)

* Number of FCC transfers registering at receiving institution who met Cohen transfer criteria.

** Number of FCC transfers registering at receiving institution who met Cohen transfer criteria but who attended another college prior to enrolling at FCC.

Miscellaneous Group

A total of 537 students requested that transcripts be sent to other four-year institutions between March 1990 and January 1991. These institutions were as diverse in type and geographic location as Parks College of St. Louis University, University of New Orleans, University of Canterbury (New Zealand), Clemson University, Brigham Young University, Cornell, M.I.T., Oral Roberts University, The University of Hawaii-Hilo, The Corcoran School of Art, Philadelphia College of the Bible, and Ohio State University.

The following is a summary of the successful transfer activity that has been confirmed by the telephone survey from the Miscellaneous Group:

Cohen Transfers	Reverse Transfers	Total Transfers
49	19	68

Among the institutions represented in the Miscellaneous Group with confirmed Cohen and Reverse transfers were:

Elon College	University of Tampa
University of MarylandEastern Shore	University of New Orleans
Slippery Rock University	Bloomsburg University
University of Canterbury (New Zealand)	Ricks College
Clemson University	Eastern Michigan University
Westminster College	University of Washington
Indiana University	Pace University
Johnson and Wales University	Queen's College
University of Staten Island	Northern Illinois University
Central Connecticut State University	Armstrong State University
East Tennessee State University	Wayne State University
University of Pittsburg, Johnstown	Parks College of St. Louis University
Corcoran School of Art	Florida Institute of Tech.
University of North Carolina-Wilmington	Wilson College
University of Miami-Florida	Penn State-Harrisburg
Slippery Rock University	Florida State University
New Mexico State University	Auburn University
Ohio State University	Roanoke College
Ringling School of Art & Design	Allegany College
The American University	Philadelphia Coll of the Bible

Trinity College
 Columbia Union College
 Arizona State University
 University of Delaware
 Texas A & M University
 Clarion University
 High Point College
 Southern College
 Meredith College
 University of North Carolina-Greensboro

University of Southern Calif.
 Virginia Commonwealth Univ.
 Cameron University
 Louisiana State University
 Indiana State University
 Messiah College
 University of S.W. Louisiana
 Villanova University
 Purdue University
 Maryland Institute - College of Art

Total Confirmed Successful Transfers
 Primary Study Institutions and Miscellaneous Institutions

<u>Cohen Transfers</u>	<u>Reverse Transfers</u>	<u>Total</u>
284	62	346

14/5

Calculating a Transfer Rate for Frederick Community College

There have been considerable variations in the efforts of researchers to devise a consistent methodology for the calculation of a four-year college transfer rate for community college students (Jones, 1991), (Berman, et.al., 1990), (Lee and Frank, 1990), (Grubb, 1990), (Adelman, 1988), (Fryer, 1990), (Carter, 1989), (Pincus and Archer, 1989).

Among the more common definitions found in the literature are:

1. Number of transfers
 Total unduplicated credit enrollment
2. Number of transfers in cohort two years later*
 Number of high school graduates enrolling in the Fall semester
 *anecdotal information at FCC would indicate a substantially higher numerator if standard was three or four years
3. Number of transfers
 Students indicating intent to transfer in total unduplicated credit enrollment
4. Number of transfers
 Students completing at least 12 credits in total unduplicated credit enrollment
5. Number of transfers
 Students indicating intent to transfer having earned at least 12 credits in total unduplicated credit enrollment
6. Number of transfers
 Number of students leaving community college from one term to next

Since we can now estimate our total yearly transfers to four-year colleges and universities with a high degree of confidence, the numerator in all of the equations is known (346). Using the Student Data Base, we can also provide denominators to complete the equations and estimate our transfer rate in accordance with the differing definitions.

	<u>Equation</u>	<u>Transfer Rate</u>
1.	$\frac{346}{5626}$	= 6.2%
2.	$\frac{346 - (\text{non-1988 hs grads})}{466}$	= $\frac{63}{466}$ = 13.5%
3.	$\frac{346}{5626 \times .32^*}$	= $\frac{346}{1800}$ = 19.2%
4.	$\frac{346}{3054^{**}}$	= 11.3%
5.	$\frac{346}{3054 \times .37^*}$	= $\frac{346}{1130}$ = 30.6%
6.	$\frac{346}{2975}$	= 11.6%

*Percentage of students indicating intent to transfer is higher among those having earned at least 12 credits.

**Number of enrolled students who have completed at least 12 credit hours.

Frederick Community College has chosen to define its student transfer rate in terms of definition five. It divides the number who actually transferred during one academic year by the total number of unduplicated students enrolled during that year intending to transfer and who have earned at least 12 credit hours.

$$\frac{346 - \text{students transferring}}{1130 - \text{students intending to transfer who have completed 12 credits}} = 30.6\% = \text{FCC Transfer Rate}$$

It is interesting to note the differential effects of significant enrollment changes at 2-year institutions on the calculated rate. For example, in school year 1987-88 (the year the typical FCC transfer student in this study first enrolled), FCC's enrollment was 23% lower than in 1990-91. Therefore, the student population base used in the denominator of this equation is much greater than one reflecting enrollment conditions in 1987-88, producing a slightly depressed rate. A reverse effect (an inflated rate) would occur if an institution experienced a significant enrollment decline.

SUCCESSFUL TRANSFER SURVEY

The second phase of the study involved a survey mailed to each of the students identified as having transferred successfully to a four-year college or university for the Fall 1990 or Spring 1991 semester. To increase response rates, after a five-week period had elapsed from the first mailing, a second mailing was sent to those who had not responded.

Response Rate

A total of 346 surveys were mailed and 177 were returned for a response rate of 51 percent. A mailed survey response rate of 51 percent is considered to be very reliable in making generalized conclusions from the analysis of data (Borg and Gall, 1971). A sample of non-respondents revealed data consistent with data from the responding group indicating unbiased survey results.

Frequency of Responses to Survey by College Attended

Capitol College	- 3	St. Mary's College	- 2
Embry-Riddle Univ.	- 1	Towson St. Univ.	- 16 (9.0%)
Frostburg St. Univ.	- 23 (13.0%)	Univ. of Baltimore	- 2
George Mason Univ.	- 1	UMAB	- 1
Hood College	- 34 (19.2%)	UMBC	- 13 (7.3%)
James Madison Univ.	- 2	UMUC	- 4
Mt.St. Mary's Coll.	- 11 (6.2%)	UMCP	- 15 (8.5%)
Radford Univ.	- 1	Virginia Tech	- 0
Salisbury St. Univ.	- 4	Western Maryland Coll.	- 1
Shepherd College	- 16 (9.0%)	West Virginia Univ.	- 3
Shippensburg Univ.	- 1	Miscellaneous	- 23 (13.0%)
		Total	177

Survey Results

The first series of questions dealt with students' levels of satisfaction with the academic program and the advising at FCC.

1. To what extent was your curriculum/program at FCC related to your major at _____ College?

48.0% 1. Directly related
44.1% 2. Somewhat related
7.9% 3. Not related

1.60 - Average

2. How satisfied are you with the academic preparation for transfer you received at FCC?

52.6% 1. Very satisfied
44.6% 2. Satisfied
2.8% 3. Not satisfied

1.50 - Average

3. How satisfied are you with the academic advising you received while a student at FCC?

41.9% 1. Very satisfied
45.3% 2. Satisfied
12.8% 3. Not satisfied

1.71 - Average

4. How satisfied are you with the specific transfer advising you received while a student at FCC?

30.8% 1. Very satisfied
47.9% 2. Satisfied
21.3% 3. Not satisfied

1.91 - Average

Students were then asked to indicate their total number of credit hours earned and final GPA while at FCC. These responses were verified from student transcripts.

5. Indicate your overall grade point average at the time you transferred from FCC.

Average FCC GPA - 3.18

6. How many credit hours did you earn at FCC?

Average credit hours earned - 55.19

Student transcripts were reviewed to provide information on major and degree status.

FCC Major

General Studies	- 62 (35.2%)
Business Admin.	- 47 (26.7%)
Art	- 1
English/Literature	- 2
History	- 1
Psychology	- 3
Biology	- 6 (3.4%)
Pre-Nursing	- 1
Pre-Physical Therapy	- 2
Visual Communications	- 4 (2.3%)
Agriculture	- 1
Wildlife	- 1
Engineering	- 3
Human Services/Adult	- 1
Education	- 7 (4.0%)
Criminal Justice	- 5 (2.8%)
Accounting	- 4 (2.3%)
Business Management	- 5 (2.8%)
Electronics Technology	- 4 (2.3%)
Office Technology	- 2
Aviation Maintenance	- 2
Physical Education	- 1
Economics	- 2
Philosophy	- 1
Nursing (RN)	- 2
Comp.Sci./ISM	- 3
Legal Asst.	- 1
Speech Comm.	- 1
Const. Manage.	- 1

AA Degree Earned at FCC?

	<u>Number</u>	<u>Percent</u>
Yes	- 106	59.8%
No	- 71	40.2%

The remainder of the questions dealt with students' status, experiences and evaluations after transfer to their new college.

7. How satisfied are you with the orientation and advising you received upon enrollment at _____ College?

27.6% 1. Very satisfied
52.3% 2. Satisfied
20.1% 3. Unsatisfied

1.93 - Average

8. How satisfied are you with the academic program at _____ College?

45.7% 1. Very satisfied
46.3% 2. Satisfied
8.0% 3. Unsatisfied

1.62 - Average

9. What is your enrollment status your first semester at _____ College?

25.4% - Part-time
74.6% - Full-time

10. What is residential status at _____ College?

33.9% 1. Residence Hall
17.5% 2. Private residence off-campus (not at home)
48.6% 3. Living at home (commuting)

11. Did you receive any financial assistance (scholarships) from _____ College based on your scholastic achievement at FCC?

14.7% - Yes
85.3% - No

If yes, please give approximate amount of award.

\$3,254 - Average scholarship award

Colleges Awarding Scholarships and Amount

Roanoke College	\$6,000
Frostburg State Univ.	480
Hood College	1,000
	1,775
	3,000
	3,000
	6,000
	8,500
	6,000
	5,800
	5,000
	2,000
UMCP	250
Slippery Rock U.	2,500
Md. Institute-College of Art	1,000
James Madison Univ.	400
Mt. St. Mary's College	3,000
	8,000
Salisbury State Univ.	1,200
Shepherd College	1,000
	700
	2,000
	2,000
Towson	1,000
	1,000
UMBC	5,000
Western Maryland College	<u>8,000</u>
Total	\$85,605

12. What is your major at _____ College?

29.4%	-	<u>52</u>	Business/Management
7.3%	-	<u>13</u>	Engineering/Architectural/Technical Science
4.5%	-	<u>8</u>	Math/Computer Science
14.7%	-	<u>26</u>	Education
19.2%	-	<u>34</u>	Social/Behavioral Science
6.8%	-	<u>12</u>	Allied Health/Physical Education
9.0%	-	<u>16</u>	Fine Arts/Communications
5.1%	-	<u>9</u>	Natural/Physical Sciences
1.1%	-	<u>2</u>	English/Literature/Journalism
1.7%	-	<u>3</u>	Agriculture/Animal Science
1.1%	-	<u>2</u>	No major indicated

177 Total

13. How many credits were not accepted in transfer at _____ College?

- 48.6% - All credits accepted
- 12.6% - Lost 1-3 credit hours
- 16.6% - Lost 4-6 credit hours
- 12.6% - Lost 7-12 credit hours
- 4.6% - Lost 13-20 credit hours
- 5.1% - Lost more than 21 credit hours

14. Of the courses that did not transfer, please list course titles and the reason if known.

Major reasons why courses did not transfer:

- a. Not equivalent to course at transfer college
- b. Not applicable to major
- c. Grade below "C"
- d. Above credit limit allowable
- e. Not required at transfer college
- f. Articulated high school course
- g. Other - explain

<u>FCC Course Title</u>	<u>Reason</u>	<u>School</u>
AN 101	Not applicable to major	Shepherd
AR 101	Not equivalent to course at ...	Shepherd
AR 104	Not equivalent to course at ...	Shepherd
AR 105	Not equivalent to course at ...	Frostburg
AR 111	Not applicable to my major at ...	UMBC
BI 100	Not equivalent to course at ...	Shepherd
BI 100	Not applicable to major	U of Canterbury
BI 101	Not applicable to major	Shepherd
BI 103	Not equivalent to course at ...	Radford
BI 209	Not equivalent to course at ...	WVU
BU 101	Grade below "C"	Hood
BU 101	Only 3 credits accepted - not 4	Frostburg
BU 101	Grade below "C"	Pace U
BU 101	Grade below "C"	UMES
BU 102	Only 3 credits accepted - not 4	Frostburg
BU 103	Above credit limit allowable	Frostburg
BU 103	H. S. Articulation	Towson State
BU 103	Not equivalent to course at ...	UMCP
BU 103	Grade below "C"	Hood
BU 103	Above credit limit allowable	UMBC
BU 107	Not equivalent to course at ...	Hood
BU 107	Not applicable to major	Hood
BU 201	Above credit limit allowable	UMBC
BU 202	Above credit limit allowable	UMBC
BU 203	Higher level class from a 2 year school	Queens College
BU 212	Higher level class from a 2 year school	Queens College

<u>FCC Course Title</u>	<u>Reason</u>	<u>School</u>
BU 213	Not required at FSU	Frostburg
BU 225	Not equivalent to course at ...	Towson State
BU 227	Grade below "C"	Pace U
BU 240	Not broad enough	Hood
BU 260	Other	Salisbury
CE 101	H. S. Articulation	Towson State
CE 102	H. S. Articulation	Towson State
CE 102	Not applicable to my major at ...	UMBC
CE 201	Not equivalent to course at ...	Frostburg
CE 201	Unknown	UMUC
CH 101	Not equivalent to course at ...	Shepherd
CH 102	Grade below "C"	Hood
CH 102	Above credit limit allowable	Towson State
CIS101	Not equivalent to course at ...	Roanoke
CIS101	H. S. Articulation	Hood
CIS101	Not equivalent to course at ...	Frostburg
CIS101	Not equivalent to course at ...	UMES
CIS101/120	Not equivalent to course at ...	George Mason
CIS111B	Above credit limit allowable	UMBC
CIS240	Above credit limit allowable	UMES
CJ 203	Not equivalent to course at ...	St. Mary's
CM 100	Not applicable to my major at ...	Radford
CM 100	Not equivalent to course at ...	St. Mary's
CM 100	Not equivalent to course at ...	UMCP
CM 103	Grade below "C"	Capitol
CM 103	Not applicable to my major at ...	Mt. St. Mary's
CM 103	Other	UMBC
CM 103	Above credit limit allowable	UMBC
CM 103	Not equivalent to course at ...	U of Canterbury
CM 105	Other	UMBC
CM 108	Not equivalent to course at ...	UMBC
CON125	Not applicable to my major at ...	Towson State
CON129	Not equivalent to course at ...	UMES
CON130	Not equivalent to course at ...	UMES
CON131	Not equivalent to course at ...	UMES
DR 121	Not applicable to my major at ...	James Madison
ED/PS208	Grade below "C"	George Mason
ED/PS208	Not equivalent to course at ...	Shepherd
ED/PS208	Not equivalent to course at ...	Shepherd
ED/PS208	Not equivalent to course at ...	Shepherd
EG 101	Not equivalent to course at ...	WVU
EG 103	No courses in this field of study	American U.
EG 105	Above credit limit allowable	Towson State
EG 106	Not applicable to my major at ...	UMCP
EG 120	Not applicable to my major at ...	Towson State
EL 100	Not applicable to my major at ...	UMCP
EL 100	Not equivalent to course at ...	Frostburg

<u>FCC Course Title</u>	<u>Reason</u>	<u>School</u>
EL 103	Not applicable to my major at ...	UMCP
EL 103	Above credit limit allowable	Towson State
EN 050	Developmental	Frostburg
EN 052	Developmental	Shepherd
EN 101	Grade below "C"	Frostburg
EN 101	H. S. Articulation	Hood
EN 101	Not applicable to major	U of Canterbury
EN 102	Not applicable to major	U of Canterbury
EN 102	Grade below "C"	Radford
EN 102	Grade below "C"	Towson State
EN 114	Not applicable to major	Hood
EN 117	Developmental	UMBC
EN 117	Not equivalent to course at ...	WVU
EN 204	Not equivalent to course at ...	Shepherd
EN 216	Not equivalent to course at ...	Radford
GG 101	Not equivalent to course at ...	Shepherd
HE 100	Grade below "C"	Shepherd
HE 204	Not equivalent to course at ...	UMBC
HI 101	Not equivalent to course at ...	Arizona State
HI 101	Not applicable to major	U of Canterbury
HI 102	Above credit limit allowable	Hood
HI 201	Not equivalent to course at ...	Radford
HI 201	AP score too low	St. Mary's
HI 204	Not equivalent to course at ...	Shepherd
HS/CM102	Not applicable to my major at ...	Mt. St. Mary's
HS/CM102	Not applicable to my major at ...	UMBC
HS/CM102	Above credit limit allowable	Frostburg
HS/CM203	Above credit limit allowable	Frostburg
ID 001	Not applicable to my major at ...	UMBC
LA 101	Not equivalent to course at ...	Hood
LA 101	Not applicable to major	Hood
LA 102	Not equivalent to course at ...	Hood
LA 102	Not applicable to major	Hood
LA 110	Not applicable to major	Hood
LA 120	Not applicable to major	Hood
LA 130	Not applicable to major	Hood
LA 210	Not applicable to major	Hood
LA 220	Not applicable to major	Hood
LA 230	Not applicable to major	Hood
LI 101	Not applicable to my major at ...	James Madison
LS 102	Not required at FSU	Frostburg
MA 050	Developmental	UMBC
MA 050/051	Developmental	Frostburg
MA 050/051	Developmental	Shepherd
MA 103	Not equivalent to course at ...	Salisbury
MA 105	Not equivalent to course at ...	American U.
MA 105	Grade below "C"	U.No. Carolina

<u>FCC Course Title</u>	<u>Reason</u>	<u>School</u>
MA 110	Not equivalent to course at ...	Salisbury
MA 110	Below minimum math required	Capitol
MA 110	Not equivalent to course at ...	George Mason
MA 110	Not equivalent to course at ...	James Madison
MA 110	Not applicable to my major at ...	UMBC
MA 110	Not equivalent to course at ...	Embry-Riddle
MA 110	Grade below "C"	Hood
MA 110	Considered developmental at ...	American U
MA 110	Not equivalent to course at ...	Westminster Col
MA 111	Not equivalent to course at ...	George Mason
MA 206	Grade below "C"	Shepherd
MA 210	Above credit limit allowable	Towson State
MA 212	Grade below "C"	Hood
MA 212	Grade below "C"	WVU
MU 101	Not equivalent to course at ...	UMCP
MU 151	Not applicable to major	Frostburg
MU 152	Not applicable to major	Frostburg
MU 171	Not equivalent to course at ...	James Madison
OT 103	Not equivalent to course at ...	Hood
OT 104	Not applicable to major	Hood
OT 204	Not applicable to major	Hood
OT 206	Not applicable to major	Hood
PC 105	Grade below "C"	Westminster Col
PC 107	Not applicable to my major at ...	Arizona State
PC 107	Not applicable to major	Shepherd
PC 107	Not applicable to major	Shepherd
PC 110	Not equivalent to course at ...	Hood
PE 114	Not applicable to major	Hood
PE 118	Not equivalent to course at ...	George Mason
PE 118	Not equivalent to course at ...	St. Mary's
PE 123	Not applicable to my major at ...	Capitol
PE 123	Not applicable to major	Shepherd
PE 131	Above credit limit allowable	Salisbury
PE 131	Not equivalent to course at ...	Frostburg
PE 140	Unknown	UMUC
PE 154	Not equivalent to course at ...	James Madison
PE 165	Not equivalent to course at ...	UMCP
PE 165	Not equivalent to course at ...	Hood
PE 166	Not applicable to major	Shepherd
PE 175	Not applicable to my major at ...	Capitol
PM 105	Not equivalent to course at ...	Hood
PS 101	Below credit limit for 2nd year studies	U of Canterbury
PS 104	Not equivalent to course at ...	U of Canterbury
PS 202	Not equivalent to course at ...	Frostburg
PX 101	Above credit limit allowable	Salisbury
PY 101	Developmental	UMCP
PY 101	Not equivalent to course at ...	Embry-Riddle

<u>FCC Course Title</u>	<u>Reason</u>	<u>School</u>
RC 121	Not considered Academic	UMBC
SD 100	Not equivalent to course at ...	Hood
SD 100	Not equivalent to course at ...	Hood
SD 100	Not equivalent to course at ...	Hood
SD 100	Not applicable to my major at ...	UMBC
SD 100	Not applicable to major	Frostburg
SO 101	Below credit limit for 2nd year studies	U of Canterbury
SO 202	Not equivalent to course at ...	Shepherd

NOTE: In some cases, students' reasons for courses not transferring do not match known articulation agreements. Their responses might be the result of incorrect transfer evaluations by the transfer school, incorrect reasons given to students for courses not transferring, or students' inaccurate responses to question.

Finally, students were asked to provide written comments.

15. Please write any comments or suggestions you might have concerning your experience at FCC as it relates to your transfer to _____ College.
(A summary of comments follows)

Comments from Transfer Surveys

The "Comments" section, since it contains personally identifying information, has been deleted from this edition.

"Comments" section = pages 30-36

Transcripts from respondents were surveyed to provide additional demographic information about successful transfers. As a result of the review, the following data was obtained:

<u>Gender</u>	<u>Number</u>	<u>Percent</u>
Females	- 111	62.7%
Males	- 66	37.3%

Age

Average age	- 24.5	
Modal age	- 20/21	- (47.5%)
Over 25	- 23.3%	

Ethnicity

American Indian	- 1	
Black	- 1	
Asian	- 2	
Hispanic	- 1	
White	- 171	- (96.6%)
Other	- 1	

High School Attended

Brunswick	- 6	
Catoctin	- 11	
Frederick	- 34	
Gov. Thomas Johnson	- 26	(72.3%) - (Frederick County High Schools)
Linganore	- 13	
Middletown	- 24	
Walkersville	- 14	
Other	- 49	- (27.7%)
Total	- 177	

Terms of Attendance at FCC

1 term	- 3.4%	
2 terms	- 11.9%	
3 terms	- 4.5%	
4 terms	- 36.2%	
5 terms	- 13.0%	- (61.1%)
6 terms	- 11.9%	
More than 6 terms	- 18.7%	
Average terms	- 5.09	

SUMMARY

1. Former FCC students who have transferred successfully to four-year colleges and universities report high degrees of satisfaction with their academic preparation while enrolled at FCC.
 - ~ 97.2% report they were satisfied or very satisfied with the academic preparation for transfer they received.
 - ~ 92.1% reported that their FCC curriculum was related to their studies at their new college.
2. These former students also report relatively high rates of satisfaction with the advising they received while enrolled at FCC.
 - ~ 87.2% report they were satisfied to very satisfied with their overall academic advising while at FCC.
 - ~ 78.7% report they were satisfied to very satisfied with the specific transfer advising they received.
3. FCC students tend to be very well prepared for transfer.
 - ~ 60% had earned the AA degree prior to transfer.
 - ~ The average GPA reported by survey respondents was 3.18 with a standard deviation of .50.
 - ~ The average number of FCC credits earned prior to transfer was 55.2 with a standard deviation of 18.3. The range of credits earned was from 12 to 99.
 - ~ The average number of FCC terms (exclusive of summer terms) attended prior to transfer was 5.1 with a standard deviation of 2.9.
4. FCC transfer students experience very little loss of credit when transferring to four-year institutions.
 - ~ One-half of all transfer students lost no credits in transfer.
 - ~ 78% lost fewer than 7 credits.
 - ~ There were no significant differences ($p > .05$) in credit loss by transfer institution.
5. FCC transfer student tend to mirror the diversity present in our overall student population in all areas except ethnicity.
 - ~ Females outnumber males 60% to 40%.
 - ~ Minority students (particularly African-American students) are virtually absent from our transfer population. The results of the survey and the confirmation of successful transfer would indicate that over 95% of our successful transfers are white.

- ~ While the average age of our transfer students is 24 and a half, the typical age at time of transfer is 20/21. Transfer students ranged in age from 19 to 53.
 - ~ Business Administration and General Studies were the two most commonly selected FCC majors and accounted for 62% of all respondents. However, twenty-seven other FCC majors were represented.
6. Orientation and advising at the transfer school seemed to be an area of concern by some students; however, a much greater level of satisfaction was reported in the academic program.
- ~ 27.6% were very satisfied with the orientation and advising at their new school compared to 20.1% who were unsatisfied.
 - ~ 92.0% were very satisfied or satisfied with their academic program at the transfer school.
7. Attendance and residential living patterns at the transfer school reflect the characteristics of traditional-aged students.
- ~ 74.6% are registered as full-time students at the transfer school, 25.4% part-time.
 - ~ 52.0% are living either in campus residence halls or in private residences off campus. 48.0% are living at home and commuting.
8. Nearly one of every six FCC transfer students receives financial assistance from the transfer school based on scholastic achievement at FCC.
- ~ The average scholarship awarded to FCC students was \$3,254.
 - ~ Scholarships awarded to FCC students ranged in size from \$250 to \$8,500.
 - ~ FCC transfer students are much more likely to be awarded scholarships from the transfer institution if they transfer in the fall rather than in the spring. Of twenty-seven scholarships reported, only seven were for Spring transfers.

Additional Findings

1. For the most part, credit loss by transfer students seems to be a function of the total number of credits earned at FCC. Two-thirds of the students reporting a credit loss of seven credits or more had earned more than 60 credits. Only 6.5% of students who earned 47 credits or less lost more than 7 credits.
2. There were no significant differences ($p > .05$) in distribution of credit loss by transfer institutions.
3. There was no significant correlation ($p > .05$) between increased amount of credit loss and decreased levels of satisfaction with transfer advising.
4. Of all courses listed as not transferring, and of all reasons listed for courses not transferring, only ED/PS 208, MA 110, and some PE 100 series courses from our general education list would appear to cause some students problems in transfer.
5. Those students transferring into Engineering/Architecture/Technical Sciences and Allied Health majors experienced a greater frequency of credit loss (7 credits or more) than students transferring into other majors.

6. The primary transfer colleges by choice of major were:

Business/Management	- Hood/Frostburg
Education	- Hood
Social/Behavioral Sciences	- UMBC/Hood
Fine Arts/Communications	- Towson
Engineering/Technical Sciences	- UMCP

7. There were no significant differences ($p > .05$) in choice of transfer college by gender except for Hood and Mt. St. Mary's. Hood transfers are overwhelmingly female and Mt. St. Mary's transfers are overwhelmingly male.
8. Only one transfer student to UMCP responded "very satisfied" when asked to indicate level of satisfaction with the orientation and advising received upon transfer. Conversely, only one Hood transfer responded "not satisfied" to the same question. More students transferring to Towson responded "not satisfied" to this question than "satisfied" or "very satisfied."
9. Primarily due to the availability of scholarships for transfer students at Hood, females were much more likely to win scholarships than males, 22 to 5.

10. There were no significant differences ($p > .05$) by gender in levels of satisfaction on the following factors:

Academic advising

Transfer advising

Orientation satisfaction

Credit loss

Nor were there significant differences ($p > .05$) in gender in these factors:

Student status after transfer

Residential status

11. There were no significant differences ($p > .05$) in the level of reported satisfaction with transfer advising by transfer college.

12. There is a significant disproportionate distribution ($p < .05$) of transfer students majoring in Education and Engineering/Architectural/Technical Sciences by gender. Females are clustered in Education and males are clustered in Engineering/Architectural/Technical Sciences.

Discussion

The Transfer Tracking System and the Successful Transfer Survey provide us with an important baseline to better understand the overall transfer activity of our students. As we continue to collect and analyze information from the System and the Survey, we will be able to track various student cohorts and further develop a reliable transfer rate.

For example, in order to fully understand the transfer activity of the 1988 high school graduating class cohort, we will need to continue to track this group through the System until 1992/93. Our data shows that nearly 45% of our transfer students attend five or more terms at FCC before transferring. Only by tracking this group four years from their initial enrollment at the college will we be able to develop a more complete picture of their rate of transfer to four-year colleges and universities as it compares to national trends.

Transfer Rate

The various rates reported here are lower than the estimates previously posited by college staff. For example, page 33 of the 1989 FCC Student Handbook states, "Percentage of those who transfer to four-year colleges: 50%." In the 1991 edition, this percentage is reported to have risen to 60%! It is clear we need to settle on a definition of transfer rate and transfer activity and begin to report it accurately and consistently.

A review of the various categories of transfer discovered by the Transfer Tracking System shows that the actual amount of transfer activity by our students is considerably greater than the two categories used in the calculations reported here. In fact, one of the fastest growing categories of

transfer activity reported by our Registrar's Office is that of inter-community college and proprietary school transfer, a category of transfer absent from attention in the literature. Another area of considerable activity is that of "Native Transfer." Nearly one-fourth of our entire summer enrollment consists of students enrolled at other colleges and universities during the fall and spring semesters and then transferring their credits back to their "home" college. Therefore, for us to become comfortable with our "rate" we must fully understand the conditions that limit the pool of students that qualify as successful transfers.

Primary Transfer Institutions

Seventy percent of our transfer students transfer to just ten colleges and universities:

Hood College	*Frostburg State University
*Towson State University	*Univ. of Md., College Park
Shepherd College	*Univ. of Md., Balto. Co.
Mt. St. Mary's College	*Univ. of Md., Univ. College
*Salisbury State Univ.	West Virginia Univ.

*ARTSYS Institutions

The remaining thirty percent are distributed over seventy different colleges and universities.

Previous reports from the University of Maryland System and other Maryland State four-year colleges and universities accounted for no more than 40 percent of the transfer activity of FCC students.

We could more effectively serve a substantial majority of our transfer students by re-doubling our efforts to provide accurate, visible, timely, and perhaps even more intrusive transfer information on these ten institutions to students. Fortunately, six of the ten are served by the new ARTSYS system which enables us to provide up-to-date computerized articulation services to a large number of transfer students.

Credit Loss

The issue of credit loss is the most perplexing issue encountered in the study. Part of the litany of the benefits of a community college education promises the transferability of lower-division courses to four-year colleges. Some community colleges even go so far as to offer tuition refunds for courses that do not transfer.

This study shows that nearly one-fourth of our transfer students lose seven or more credits in transfer. On the surface, this statistic appears to invalidate this promise. On closer inspection, however, we find that two-thirds of the high credit loss group has earned 61 or more credits at FCC. Also, we find that only three of our courses that satisfy the core general education requirement appear with any significant frequency on the "did not transfer" list and that most of the transfer difficulty reported with these courses was from out-of-state institutions.

The central issue of loss of credit in transfer as revealed in the survey seems to focus more on the characteristics of students' enrollment patterns and changing educational goals rather than the transfer shortcomings of the courses themselves. For example, the largest number of courses noted "not equivalent to course at ..." were those that do not fulfill our general education requirements and/or were required courses in career (not transfer) programs. Another frequent response was that a course was not "applicable to my major at ...," indicating that a student had selected a major at the transfer school not directly related to his or her program at FCC (had changed educational goal). The other frequent response was that the course was "over the transfer credit limit allowable at ...," indicating that the student had taken more credits at FCC than the maximum allowable in transfer at the transfer college. Developmental courses or courses in which a grade below "C" was earned cannot be assumed transferrable under any circumstances.

National profiles of community college students confirm the conditions reported on the survey as contributing to the loss of credit in transfer (Knoell, 1982). Many students pursuing a career program actually have transfer plans and attempt to transfer non-articulated associate degrees. For many students the career associate degree is an intermediate credential serving their immediate occupational needs. The goal of pursuing a baccalaureate degree may not come until later. Also, many community college students are very undecided about their educational plans and "shop around" in various curricula before settling into a program. It is very likely these students will accumulate non-transferrable credit or excess credit prior to transfer.

The students described above, along with those students needing significant developmental coursework and those completing associate degrees requiring more than 64 credits, are those most in jeopardy of losing credits in transfer. However, none of these frequently observed scenarios are viewed by community colleges as inappropriate educational outcomes. In fact there is little evidence of efforts on the part of community colleges to eliminate these conditions that contribute to transfer credit loss.

Therefore, it is likely there will continue to be a significant occurrence of credit loss (7 or more) by our transfer students that is not only unavoidable but for some students actually the result of sound educational planning. For many students, as evidenced by the relatively few written comments about credit loss, a modest credit loss may be a small price to pay for the occupational or educational benefit derived from attending a community college.

Advising and Orientation Satisfaction

Two additional areas from the survey deserve our attention. It is noteworthy that, in comparison to other questions regarding their experiences at FCC, students rate their satisfaction with specific transfer advising the lowest. Future surveys should expand on this question to further explore the perceptions or experiences that caused these responses. Also, another area which elicited a high rate of "not satisfied" responses was that of advising and orientation at the transfer college. Many of our transfer students do not feel well received at their new college. We should communicate this finding to our primary transfer colleges.

Choice of Major at the Transfer College

There is a significant disproportionate distribution ($p < .05$) in the selection of major at the transfer college by gender. The traditional forces which cause men to select majors in engineering/physical/and technical sciences and women to select education are extant at FCC. Recent research at the University of Maryland, College Park (Holton, 1991), would indicate this is a characteristic of community college transfer students from throughout Maryland. There is an obvious need to encourage female community college transfer students with strong math and science aptitudes to consider science-related majors at the transfer college.

Further Examinations of Transfer Effectiveness

Future analyses and surveys should examine the role FCC plays in fostering the transfer success of its minority students, particularly African-American students. Also, students' transcript histories should be surveyed to study the likelihood of successful transfer by those students entering the college academically unprepared for college-level work.

Recent literature recounting the new public debate on the extent and the effectiveness of the community college transfer function stresses that colleges need not be threatened by the calculation and publication of a specific rate even if that rate is compared to other institutions.

The nationwide picture of community college transfer students that is emerging from studies is somewhat similar to that of successful students at four-year colleges. Those students better off financially and better prepared academically are more likely to transfer and more likely to be successful after transfer. Some argue that the true measure of a community college's transfer effectiveness is one which shows how successful the college is in fostering baccalaureate attainment among those students least likely to earn degrees.

Therefore, the rate becomes a statement of the current condition and a benchmark to which future rates can be compared. It can also provide impetus for resource allocation to support aspects of the transfer function that may need strengthening in order to foster greater participation in transfer by selected student segments.

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